

**Amendments to the Claims:**

The listing of claims will replace all prior versions and listings of claims in the application:

**Listing of Claims:**

- 5 1. (currently amended) An optical drive device, comprising:
- an optical drive controller adapted to couple to a laser diode driver and to cause the laser diode driver to provide signals to drive a laser diode to output a modulated light signal corresponding to data to be written to an optical disk, the optical drive controller testing timing characteristics of an electrical channel between
- 10 the optical drive controller and the laser diode driver and generating a set of calibration signals to program a laser diode drive characteristic associated with the laser diode driver in response to the testing of the electrical channel between the optical drive controller and the laser diode driver;
- wherein the electrical channel tested by the optical drive controller does not include
- 15 ~~between the optical drive controller and the laser diode driver is independent of an~~ electrical path between the laser diode driver and the laser diode.
2. (previously presented) The optical drive device of claim 1, wherein the optical drive controller outputs one or more electrical test signals to the laser diode driver through
- 20 the electrical channel between the laser diode driver and the optical drive controller, the optical drive controller receiving one or more electrical monitor signals generated by the laser diode driver in response to the one or more test signals, the one or more electrical monitor signals received through the electrical channel between the laser diode driver and the optical drive controller and characterizing the

timing characteristics of the electrical channel, the optical drive controller  
generating one or more calibration signals responsive to one or more electrical  
monitor signals.

- 5     3. (previously presented) The optical drive device of claim 1, wherein the optical drive  
controller generates a first control signal to set the laser diode driver in a calibration  
mode for a calibration process and generates a second control signal to set the laser  
diode driver in a normal operation mode.
- 10    4. (original) The optical drive device of claim 1, wherein the calibration signals adjust  
circuits within the optical drive controller.
5. (previously presented) The optical drive device of claim 1, wherein the calibration  
signals adjust circuits within the laser diode driver.
- 15    6. (previously presented) The optical drive device, of claim 1, wherein the optical  
drive controller outputs a test signal to the laser diode driver, the optical drive  
controller receiving a monitor signal generated in response to the test signal, the  
optical drive controller outputting a second test signal, responsive to the monitor  
20    signal, for calibrating the laser diode driver in an iterative process.
7. (previously presented) The optical drive device of claim 6, wherein the optical drive  
controller generates a first control signal to set the laser diode driver in a calibration

mode for a calibration process and generates a second control signal to set the laser diode driver in a normal operation mode following the iterative process.

8. (currently amended) An optical drive device, comprising:

5     an optical drive controller;

      a laser diode driver providing drive signals to a laser diode, the laser diode driver  
      responsive to the optical drive controller to selectively provide read drive signals  
      or write drive signals to the laser diode, the write drive signals causing the laser  
      diode to output a modulated light signal corresponding to data to be written to an  
10     optical disk; and

      an electrical channel coupling the optical drive controller to the laser diode driver,  
      the electrical channel communicating read signals or write signals between the  
      optical drive controller and the laser diode driver, the optical drive controller  
      testing timing characteristics of the electrical channel by outputting timing test  
15     signals over the electrical channel, the laser diode driver receiving the timing test  
      signals from the electrical channel and operating on the timing test signals from  
      the electrical channel to responsively generate a monitor signal, the laser diode  
      driver providing the monitor signal to the optical drive controller;

      wherein the electrical channel tested by the optical drive controller does not include  
20     ~~between the optical drive controller and the laser diode driver is independent of an~~  
      electrical path between the laser diode driver and the laser diode.

9. (previously presented) The optical drive device of claim 8, wherein the optical drive

controller generates a calibration signal in response to the monitor signal and, responsive to the calibration signal, programs a drive characteristic of the laser diode driver to accommodate a timing characteristic of the electrical channel between the optical drive controller and the laser diode driver determined by testing.

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10. (previously presented) The optical drive device of claim 9, wherein the electrical channel couples through a flexible cable and wherein the laser diode driver and the laser diode are mounted on an optical head of the optical drive device.

10 11. (original) The optical drive device of claim 9, wherein the optical drive controller outputs a first control signal to set the laser diode driver in a calibration mode for a calibration process and generates a second control signal to set the laser diode driver in a normal operation mode.

15 12. (previously presented) The optical drive device of claim 8, wherein the optical drive controller generates a calibration signal in response to the monitor signal and, responsive to the calibration signal, programs a drive characteristic within the optical drive controller to accommodate a characteristic of the electrical channel between the optical drive controller and the laser diode driver determined by testing.

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13. (previously presented) The optical drive device of claim 8, further comprising a communication port configured in the laser diode driver to receive a control signal from the optical drive controller.